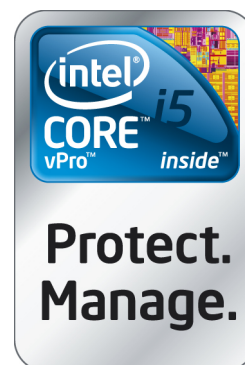# Panasonic
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TOUGHBOOK CF-31 HIGH MODEL.

THE FULLY RUGGED, FULL-SIZE NOTEBOOK WITH ADVANCED GRAPHIC CAPABILITIES.

Specifically designed for field-based professionals who work in challenging environments and need advanced graphic performance, the new fully rugged Toughbook CF-31 High-Level Model offers the ultimate combination of graphics delivery and supreme ruggedness. Whether working in adverse weather, wet conditions, underground or where space restrictions would usually hamper productivity, the CF-31 ensures that mobile workers perform to their optimum and can access critical visual data and drawings, at all times.

- Intel® Core™ i5 540M with discreet switchable graphics
- Genuine Windows® 7 Professional
- 13.1" high brightness outdoor display with circular polarizer
- Certified by MIL-STD 810G* and IP65*
- Backwards compatible with CF-30 docking stations and carmounters**
- High flexibility and connectivity through new configurations such as second LAN, camera, 3G, WIMAX or GPS

* Tested by an independent third-party lab following IEC 60529, sections 13.4, 13.6.2, 14.2.5, 14.3
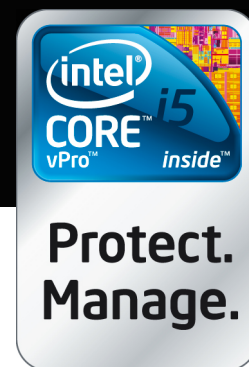** Limited functionality

intel® CORE™ i5 vPro™ inside™

Protect. Manage.

TOUGHBOOK When it's worth doing better.

www.toughbook.co.uk

MOBILE BUSINESS EXCELLENCE

Protect. Manage.

FOR FIELD PROFESSIONALS LOOKING FOR ADDITIONAL GRAPHIC POWER.

The CF-31's high performance is provided by the latest Intel® Core™ i5 processor architecture, allowing users to exploit job-specific, cutting-edge software. A 1,100cd/m2, 13.1'' LED backlit display (4:3) with circular polarizer also means the CF-31 can be viewed in direct sunlight.

Mobile Computing Platform	- Intel ® Core™ i5 with vPro™ technology	
	- Intel ® Core™ i5-540M processor (2.53GHz, 3MB Smart Cache)	
	- Intel ® 5 series Express chipset QM57	
	- Intel ® Centrino ® Advanced-N 6200 AGN WLAN	
Operating System	Genuine Windows ® 7 Professional	
RAM	2GB DDR3 SDRAM (max. 4GB)	
Graphic Chip	ATI Mobility Radeon™ HD 5650 (512MB dedicated RAM)	
Storage	250GB HDD (SATA) Test	
LCD	13.1'' Active Matrix (TFT) colour LCD (up to 1.100cd/m2) with circular polarizer 1024 x 768 pixels (XGA); 16 million colours, concealed mode	
Cabinet	Full magnesium alloy with integrated carrying handle	
Bluetooth™	Version 2.1 + EDR; slide on/off switch	
WLAN	IEEE 802.11 a/b/g/n compliant; slide on/off switch	
LAN	IEEE 802.3 10 Base-T, IEEE 802.3u 100 Base-TX, IEEE 802.3ab 1000 Base-T	
Modem (optional)	Data: 56 kbps (V.92) FAX: 14.4 kbps	
Audio	WAVE and MIDI playback, Intel ® High Definition Audio subsystem support	
Input Devices	Touchscreen, Touchpad and Keyboard with 88 keys	
Interfaces	Serial (16550A compatible)	D-sub, 9-pin
	External display (VGA port)	Mini D-sub, 15-pin
	HDMI	
	Headphone	Mini-jack, 3.5 DIA
	Microphone	Mini-jack, 3.5 DIA, stereo
	DC-In	Jack
	USB 2.0	4x 4-pin
	Modem (optional)	RJ-11
	LAN (2nd LAN optional)	RJ-45
	Firewire (IEEE1394a, optional)	1x 4-pin
	External Antenna	1x (Dedicated 500 coaxial connector)
	Port Replicator	80-pin
Expansion Slots	PC Card	1x Type I or 1x Type II
	Express Card	1x /34 or /54
	SD/SDHC Memory Card	1x
	Optional RAM Module	1x SO-DIMM (DDR3 SDRAM)
Power	AC Adapter	Input: 100 ~ 240V AC, 50Hz/60Hz; Output: 15.6V DC, 5.0A, 110W
	Battery	Li-ion (10.65V, 8.55Ah)
	Battery	Li-ion (10.65V, 8.55Ah)
	Battery Life	Approx. 11.5h (Windows ® 7 model, Mobile Mark™ 2007, LCD brightness: 60cd/m2)
	Charging time	Approx. 4.5h (Power on), 3.5h (Power off), depends on situation
	Power Consumption	Approx. 100W (maximum when recharging)
Power Management	Standby function, Hibernation function, ACPI BIOS	
Software	Adobe Reader, PC Information Viewer, Loupe Utility, Bluetooth™ Stack for Windows ® by TOSHIBA, Wireless Switch Utility, Wireless Connection Disable Utility, Hotkey Settings, Battery Recalibration Utility, Infineon TPM Professional Package, Protector Suite QL, Aptio Setup Utility, Hard Disk Data Erase Utility, PC Diagnostic Utility, Concealed mode Utility	
Security Features	TPM (Trusted Platform Module, TCG V1.2 compliant), Integrated hardware security lock slot, Password security (supervisor password, user password, HDD lock)	
Dimensions (W x H x D)	302mm x 73.5mm x 292mm, 11.9'' x 2.9'' x 11.5'' (excluding protrusions)	
Weight	Approx. 3,72kg (Approx. 8,2lb.)	
Integrated Options	GPS, Fingerprint Reader, Smart Card Reader, 3G Mobile Broadband (HSPA, up to 7.2Mbps)	
Testing Standards	Water resistance test	IEC529 (JIS C0920) IP-X5*, MIL-STD 810G 506.5- I & III*
	Dust resistance test	IEC529 (JIS C0920) IP-6X*, MIL-STD 810G 510.5- I & II*
	Gravity drop resistance test	MIL-STD 810G 516.6 IV* (180cm drop)
	Vibration resistance test	MIL-STD 810G 514.6- I & II*
Accessories	Desktop Port Replicator	CF-VEB311
	Car Mounter Kit	CF-WEB301
	AC Adapter	CF-AA5713A
	Battery	CF-VZSU46AU
	DVD Multi Drive (Multimedia Bay)	CF-VDM311U
	Stylus Pen	CF-VNP009U

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